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### (54) FUNCTIONAL PROTEIN-CONTAINING POLYURETHANE

(57) Abstract:

**PURPOSE:** To obtain the polyurethane free from outflow of a specific functional protein raw material by washing, excellent in dyeing property, permeability, slipperiness property, gloss, handle, etc., and useful for chemical fibers and films by adding a specific functional protein raw material to polyurethane.

**CONSTITUTION:** This polyurethane is obtained by adding at least one of (A) a functional protein raw material obtained by adding an acid to a protein or water-diluted material thereof, lowering the ion strength and controlling pH of the material to 24.2, (B) a functional protein raw material obtained by controlling pH of a protein or its water-diluted material to acidity to neutrality area, lowering the ion strength, controlling pH thereof to .9.0 and heating the material and then recontrolling the pH to .6.0 or 24.2, (C) a functional protein raw material obtained by controlling a water-diluted protein to pH .9.0 and (D) a functional raw material obtained

by mixing a protein or the protein raw material of the components A to C with a crosslinking agent to polyurethane. Furthermore, as these components A and B, raw proteins, albumen proteins, etc., are preferably used, respectively and as the component C, whey protein, casein, etc., is preferably used.

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